

## Filtration

### From Coil

Continuous etching produces high strength metal filtration parts, while maintaining extremely close tolerances and a high degree of repeatability.

### To Class 100 Exposure

Unlike panel etched parts, reel-to-reel etching allows for secondary processing. Parts can be easily formed, plated or insert molded using various type of equipment.

### Continuous Etch Line

One distinguishing capability is the "flat-line" process control system which continually monitors over 160 critical process points in real time and maintains the process conditions within a narrow band at all times.



Automotive



Mil-Aero/  
Industrial



Consumer



Medical

**Filtration devices made to your specifications.**



Interplex Etch Logic's process can utilize many material options.

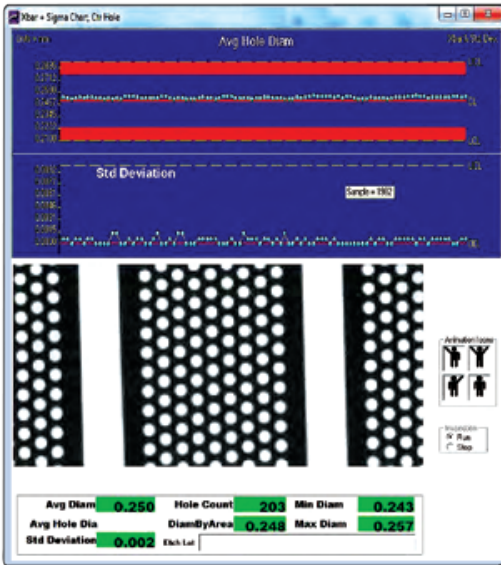
See our website for a complete material list.

# Interplex

## ADDRESS

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## Etch Process Monitoring

Interplex Etch Logic utilizes in-line SPC to assure that the process is well controlled.

A vision camera captures and digitizes mesh areas, reports number of holes in the FOV, measures largest and smallest holes and reports average hole size along with calculated standard deviation.

These inputs are displayed in a real time SPC chart, helping us visualize the “Flat-Line” process control we have designed into our equipment capability.

## Engineering & Development

Let Interplex Etch Logic support your engineering design team with application expertise. Various hole patterns can be utilized to achieve open area ratios to meet your requirements. Design templates (round, square, hex) can be provided to assist in filtration pattern development. *See example below:*

## Interplex Etch Logic - Mesh Design Templates

| Etched Screen Design Template - Round Hole Pattern |   |   |   |   |  |                            |                   |                                     | Metric Units                      |  |                               |
|--|---|---|---|---|--|----------------------------|-------------------|-------------------------------------|-----------------------------------|--|-------------------------------|
| Design   | Max Perf Hole Diameter  | Nominal Perf Hole Diameter                    | Open Area of each hole in mm <sup>2</sup> | Nominal Calc Percent Open Area                      | X Pitch  | Y Pitch                    | Average Web Width | Narrowest Web between Maximum Holes | Max Material Thickness            | Selected Material Thickness  | Hole Count Density            |
| Options  | Nom. + 5% of Selected Thickness                                   | Given   | $\pi \times R^2$                          | $(\pi) \times (\text{Nom Hole})^2 / (2X \times 2Y)$ | Input at Nom Hole + 0.07 mm or more                        | $X/2 \times \tan 60^\circ$ | X - (Nom Diam)    | X - (Max Diam)                      | Nom Hole Diam x 0.83              | Must be LESS than Max Calc Thickness   | Holes per Square CM           |
| A  | 0.155   | 0.150   | 0.0177                                    | 38.6%   | 0.230  | 0.1992                     | 0.0800            | 0.075                               | 0.125                             | 0.102  | 2183                          |
|  | Label each option - several rows can be calculated for comparison | Input desired Perforation Hole diameter in MM |   | Calculated Percent Open Area                        | Input Hole pitch following rule for minimum web of 0.07 mm |                            |                   |                                     | Calculated Max Material Thickness | Input Material thickness in mm satisfying calculated maximum material possible | Calculated Hole Count Density |